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NATIONAL COMMUNICABLE DISEASE CENTER



Morbidity and Mortality

Vol. 16, No. 50

WEEKLY REPORT

Week Ending
December 16, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

CURRENT TRENDS INFLUENZA - Further Reports

Influenza-like illnesses continue to be reported from Michigan, now including the upper peninsula. This week, the first 2 isolates of influenza virus, both A₂, were reported. One specimen was from Detroit, and the other from Ann Arbor. Other states also reported influenza-like disease (Figure 1).

In Alabama, outbreaks of influenza-like illnesses were reported from five counties. In Mobile County, during the week of December 3, approximately 6,700 persons visited their family physicians with complaints consistent with influenza. A group of 12 acute versus 13 convalescent, matched unpaired sera taken from this outbreak

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demonstrated a fourfold rise in geometric mean titer against the soluble influenza A antigen by the complement fixation test.

In Tulsa, Oklahoma, for the week of December 3, an outbreak of febrile illness in a parochial high school led

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CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES (Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	50th WEEK ENDED		MEDIAN 1962 - 1966	CUMULATIVE, FIRST 50 WEEKS		
	DECEMBER 16, 1967	DECEMBER 17, 1966		1967	1966	MEDIAN 1962 - 1966
Aseptic meningitis	35	33	34	2,920	2,867	2,076
Brucellosis	4	4	4	240	239	347
Diphtheria	2	4	11	199	188	282
Encephalitis, primary:						
Arthropod-borne & unspecified	27	29	---	1,524	2,083	---
Encephalitis, post-infectious	14	12	---	738	698	---
Hepatitis, serum	62	44	758	2,265	1,427	36,394
Hepatitis, infectious	34	714	758	37,235	31,275	36,394
Malaria	36	24	2	2,021	496	103
Measles (rubeola)	25	1,437	3,249	61,537	200,780	380,794
Meningococcal infections	8	58	58	2,072	3,288	2,683
Civilian	10	52	---	1,943	2,969	---
Military	6	6	---	129	319	---
Poliomyelitis, total	—	1	2	41	98	114
Paralytic	—	1	2	28	92	92
Rubella (German measles)	412	385	---	43,478	45,303	---
Streptococcal sore throat & scarlet fever	10,277	8,042	8,042	429,808	404,864	375,078
Tetanus	7	4	4	223	191	270
Tularemia	6	4	4	165	176	277
Typhoid fever	4	1	5	393	364	437
Typhus, tick-borne (Rky. Mt. spotted fever)	—	—	—	297	251	222
Rabies in animals	48	64	64	4,048	3,867	3,867

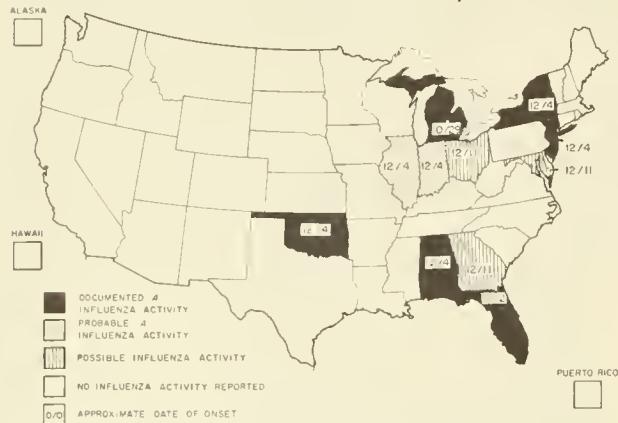


NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	2	Rabies in man	2
Botulism	3	Rubella, Congenital Syndrome	9
Leptospirosis: L.A.-1, Maine-1, N.Y. Upstate-1, Texas-1..	45	Trichinosis: Kans.-1, N.Y. Upstate-1	59
Plague: Colo.-1	3	Typhus, murine: Texas-1	43
Psittacosis: Tenn.-1	44	Polio, Unsp.	13

INFLUENZA - Further Reports (Continued from front page)

Figure 1
**INCIDENCE OF INFLUENZA AND INFLUENZA-LIKE
 DISEASE BY STATE AS REPORTED TO NCDC.
 OCTOBER 29 TO DECEMBER 20, 1967**



to approximately 30 percent absenteeism. Matched sera from this outbreak failed to show rises to influenza, adenovirus, and para-influenza antigens. In the neighboring county of Bartlesville, an outbreak of febrile illness resulted in 25 to 30 percent absenteeism in the public high school. Matched sera from acute and convalescent groups of persons showed a significant increase in titer to the soluble influenza A antigen.

An increase in incidence of respiratory illness is also occurring in New York State. In New York City and in Westchester and Dutchess Counties, focal outbreaks of febrile respiratory illnesses have led to increased school absenteeism. A₂ influenza virus was isolated from outbreaks in a private institution in Dutchess County and in New York City. There is no serologic documentation of influenza in these areas to date.

School absenteeism increased in four Maryland counties. The absenteeism was attributed to an illness characterized by fever, headache, cough with associated chest pain, sore throat, neck pain, and nausea. Diagnostic studies are in progress.

In central Ohio, one school had 40 percent absenteeism due to a syndrome consisting of fever, upper respiratory symptoms, myalgia, and diarrhea. No diagnosis has been made.

Illnesses consisting of fever, sore throat, headache, and substernal pain, lasting from 2 to 3 days have occurred in 4 junior high schools in Washington, D.C. Increased absenteeism from 15 to 25 percent was noted in 2 of these schools.

In northern Georgia, increased school absenteeism due to a febrile respiratory illness was reported. Due to the increased absenteeism, one school closed 2 days earlier than expected for the Christmas holidays.

From each area, in which influenza activity has not yet been documented, specimens for virus isolation and serology are being processed. NCDC has confirmed the results previously reported from Michigan and Florida (MMWR, Vol. 16, Nos. 48 and 49), and from Oklahoma.

(Reported by Thomas S. Hosty, Ph.D., and W.H.Y. Smith, M.D., C.P.H., Alabama State Department of Public Health; William E. Long, M.D., District of Columbia Department of Public Health; J. E. McCroan, Ph.D., Georgia Department of Public Health; John H. Janney, M.D., M.P.H., Maryland State Department of Health; George H. Agate, M.D., M.S.P.H., and Maurice Becker, M.D., Michigan Department of Public Health; Tibor Fodor, M.D., and Stephen Millian, M.D., New York City Department of Health; Rudolph Deibel, M.D., and Julia L. Freitag, M.D., New York State Department of Health; Calvin B. Spencer, M.D., and R. L. Carpenter, M.D., Oklahoma State Department of Health.)

Editorial Note: In this series of MMWR reports concerning influenza-like diseases in 1967, the terms "influenza A" or "A influenza" have been used to denote the results of testing by the complement fixation and immunofluorescent techniques. These terms refer to the influenza A group of viruses and not specifically to the influenza type A virus as typified by the PR 8/34 strain. The complement fixation technique using the soluble influenza antigen, will distinguish among influenza groups A, B, and C, but will not distinguish among type A, type A₁, and type A₂. Hemagglutination inhibition techniques and virus neutralization techniques permit further type specific characterization of the virus. Thus, the terms "influenza A₂" or "A₂ influenza," have been used only when these two techniques have been employed. Since the fall of 1957, the only type of A influenza, which has been evident in this country, is that which has been caused by A₂ strains of the virus.

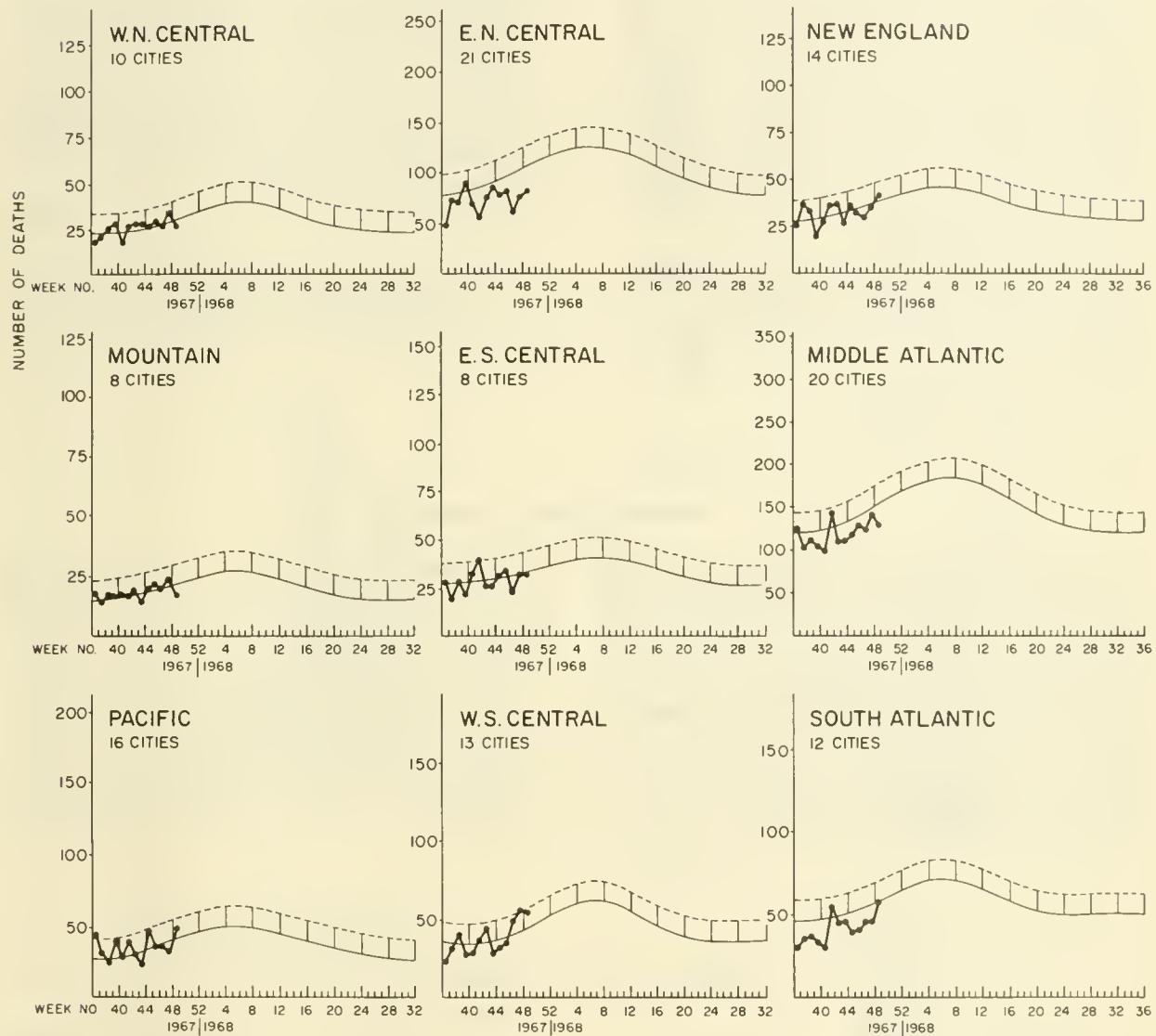
INFLUENZA - 1967

The pneumonia and influenza mortality graphs for each of the nine major geographic divisions of the United States are presented in Figure 2. The mortality has not exceeded the epidemic threshold for a period of 2 consecutive weeks in any of these regions. Only when the mortality exceeds the threshold for more than 2 consecutive weeks is it considered to be presumptive evidence for a common under-

lying cause. When excess mortality is due to influenza, it has been generally observed that the peak incidence of mortality has followed the peak influenza morbidity by a period of approximately 4 weeks.

Editorial Note: The basis of the construction of the National Pneumonia-Influenza Mortality Chart is described in MMWR, Vol. 14, No. 4.

Figure 2
PNEUMONIA-INFLUENZA DEATHS IN 122 UNITED STATES CITIES
1967-1968



EPIDEMIOLOGIC NOTES AND REPORTS
BOTULISM — Bronx, New York

In Bronx, New York, botulism has occurred in a father (MC) and his son (AC), following ingestion of home-prepared peppers. On December 9, 48 hours after eating a hamburger sprinkled with home-prepared chopped green and red peppers, MC developed mild abdominal cramps, nausea, and transient diarrhea. During the next 3 days, he developed the onset and progression of lethargy, blurred vision, diplopia, dysphonia, dry mouth, dysarthria, dysphagia, neck muscle weakness, and urinary hesitancy. AC, 80 hours after ingestion, developed generalized weakness, lethargy, blurred vision, diplopia, dry mouth, dysarthria,

MC and AC were hospitalized on December 13 and 14 respectively. Upon examination, each patient showed pronounced lethargy, dilated reactive pupils, ptosis, palatal erythema, dysarthria, dysphagia, and bilateral VI nerve palsies. Mentation was unaffected. The New York City Department of Health promptly provided AB botulinum antitoxin, and on December 14, each man received 100,000 units of botulinum antitoxin AB intravenously. On December 15, each received 10,000 units of type E antitoxin. Following the AB antitoxin, AC demonstrated a transient

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BOTULISM - Bronx, New York

(Continued from page 419)

erythematous rash. By December 16, both patients were significantly improved. The suspect peppers were obtained from the patients' home by officials of the New York City Department of Health. Samples were distributed to the New York City Department of Health laboratory and NCDC laboratory for analysis. Mouse protection tests at NCDC identified type B botulinum toxin in a previously unopened jar of the home-prepared peppers; however, to date, no toxin has been identified from the patients' sera or the opened jar of peppers.

The peppers had been prepared by MC in late September 1967. Preparation involved warming the peppers in a frying pan for 5 minutes, and placing them in one of 2 glass jars. One jar contained olive oil, and the other wine

vinegar. The jars were closed with screw caps and stored at room temperature. During the fall, MC and AC periodically ate chopped peppers from the jar containing wine vinegar. Several weeks prior to his present illness, AC noted transient blurring of vision after eating a pepper. No other family member ever ate the peppers. Further laboratory investigations are in progress at the New York City Department of Health and NCDC.

(Reported by Vincent F. Guiney, M.D., Director, Bureau of Preventable Diseases, and Tibor Fodor, M.D., Chief, Division of Epidemiology, Bureau of Preventable Diseases, New York City Department of Health; Stewart Cook, M.D., Neurology Resident, Jacobi Hospital, Bronx, New York; and an EIS Officer.)

HUMAN PLAGUE - Colorado

A case of meningeal plague in a 60-year-old oil rigger has been reported from Colorado. The patient, from Rio Blanco County, became ill with chills and fever on September 8, 1967. He was treated with parenteral penicillin for pustular pharyngitis, but on September 10, developed left axillary adenopathy. On September 14, he was transferred to a Denver hospital where he developed nuchal rigidity on September 18. A spinal tap yielded turbid fluid, a smear of which revealed gram negative rods. Subsequently, *Pasteurella pestis* was identified from the spinal fluid

at NCDC. The patient was treated with Chloromyeetin, and he recovered after a long period in the hospital. There was no history of exposure to rodents; however, further ecologic investigations will be conducted.

This is the first plague case from Rio Blanco County, and only the fourth case ever reported as occurring in Colorado.

(Reported by C. S. Mollohan, M.D., M.P.H., Chief, Epidemiology Section, Colorado State Department of Public Health; and Bacterial Reference Unit, Laboratory Program, NCDC.)

MUMPS - Mason County, Kentucky

Between June 1 and December 16, 1967, 407 cases of mumps, with an overall attack rate of 2.2 percent, occurred in Mason County, Kentucky (pop. 18,750). The majority of cases occurred in school children with 286 cases among the 4,076 enrolled school children; 104 cases were in preschool children, and 17 cases were in adults. Data, acquired by questionnaire and by school absentee records, yielded both the distribution of cases in Mason County between June 1 and December 16, and the epidemic curve for cases among school children between August 26 and December 16 (Figure 3). The peak incidence occurred in October with the largest outbreaks occurring in the Orangeburg and Woodleigh schools (Figure 4). At the 2 schools, 104 and 51 cases, respectively, were reported through December 16. Highest attack rates were noted in the first

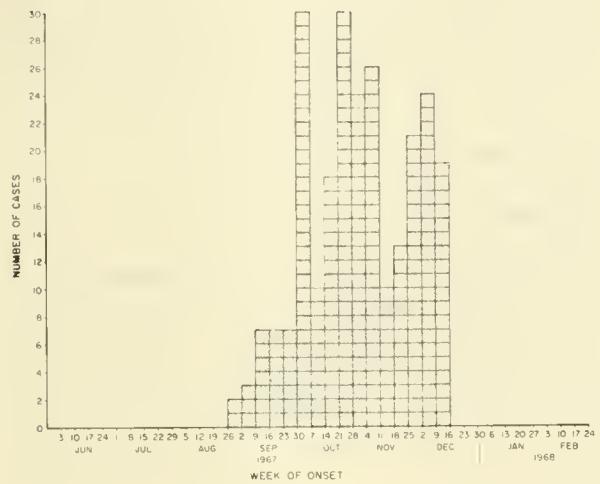
and second grade children, with somewhat lower rates in the third and fourth grade children. Only sporadic cases have been noted beyond the fourth grade (Table 1). Analysis of individual classroom outbreaks showed that cases continued to occur for 2 or more months following the initial classroom case. Data also showed that clinical mumps developed in 29 percent of the males and in 27 percent of the females in the 2 schools.

Cases have now been noted in 7 of the 8 remaining grade schools (Figure 4), including 26 cases in Washington school. Clinical illnesses have been typical and mild, with school absence averaging 4 to 5 days per child. No serious complications or fatalities have been reported to date.

A review of physician reported cases of mumps in Mason County since 1950, shows a pattern of 4-year cycles with the most recent peaks in the springs of 1960 and 1964. All county grade schools were involved in these 2 epidemics. In contrast, cases for 1967 were first reported by physicians in June (2 cases) with the highest number being reported in October (41 cases). A detailed epidemiologic investigation of the current outbreak is in progress.

(Reported by James R. Sills, M.P.H., Administrator, Mason County Health Department, Mason County, Kentucky; C. Hernandez, M.D., M.P.H., Director, Division of Epidemiology, Kentucky State Department of Health; and 2 EIS Officers.)

Figure 3
CASES OF MUMPS IN SCHOOL CHILDREN
BY DATE OF ONSET TOTAL OF NINE SCHOOLS
Mason County, Kentucky — August 26, 1967



MALARIA - Blood Transfusion Induced Cases

(Continued from page 421)

treated with corticosteroids since 1961. Following her arrival, she was admitted to a New York City hospital. Between June 5 and 20, she received platelet transfusions from 121 donors and 7 units of whole blood. On July 6, she developed a temperature of 106°F. and shaking chills. Examination of peripheral blood smears on July 7, showed *Plasmodium ovale* parasites. The patient responded favorably to chloroquine, but died 2 weeks later from thrombocytopenia.

The patient had no history of malaria, and allegedly had not resided in malaria endemic areas. Examination of sera from the blood and platelet donors, showed one donor whose serum contained fluorescent antibodies against all 4 human *Plasmodium* species in a dilution of 1:80, indicating past malaria infection from an undetermined species. This Nigerian male, however, did not recall having had malaria. Blood smears from this man on 2 subsequent dates, did not contain malaria parasites.

Case No. 2: On August 5, 1967, a 29-year-old white female, resident of Jacksonville, traveled by air to Mexico City. The next day, she developed appendicitis and underwent an appendectomy, receiving 1 unit of blood during the operation. She returned to Jacksonville on August 10, and developed chills and fever on August 14. These symptoms recurred periodically for 3 weeks when *P. malariae* parasites were detected on a peripheral blood smear. She responded favorably to chloroquine therapy. She had no previous history of unexplained episodes of fever, and had never been outside the United States or Canada prior to August 5.

Case No. 3: On November 1, 1967, an 8-month-old white female infant with a 5-month history of recurrent fevers was admitted to a New Haven, Connecticut hospital. The infant was born on February 25, following a normal pregnancy and delivery; she received 2 units of whole blood during the first 36 hours of life because of Rh incompatibility. She was healthy until 3 months of age when she developed episodes of low grade fever. These recurred until age 6 months when her temperature increased to 102°F. She was hospitalized on September 15, in Bristol, Connecticut. Physical examination revealed that the infant had hepatosplenomegaly. Culture and bone marrow studies were reported negative. The infant was discharged 1 week later. She was afebrile for the following 3 weeks, then high fever recurred. The infant was rehospitalized. Antibiotic treatment was ineffective, and she was transferred to a New Haven hospital for further evaluation.

Physical examination revealed a well-developed, febrile, lethargic child with hepatosplenomegaly. Multiple laboratory investigations were normal except for a sedimentation rate of 27. An open liver biopsy and splenoportogram were performed; no gross abnormalities of liver or spleen were seen. Liver histology was normal except for slightly swollen Kupffer cells containing dark pigment. The presence of this pigment prompted examination of peripheral blood smears in which *P. malariae* were found. The patient was given chloroquine, and her fever defervesced completely within 36 hours.

The patient had never been outside Connecticut, and her parents had no history of malaria or travel to malarious areas. The two persons who donated blood for the exchange transfusion were identified, and their sera examined. The first donor, a 31-year-old Greek male, arrived in this country from Sparta, Greece, in 1966. He had no history of unexplained fever episodes, and his serum contained no fluorescent antibodies against malaria. The other donor, a 32-year-old male from Oaxaca, Mexico, came to Connecticut in 1956 where he remained except for a brief visit to Mexico City in 1963. He had no history of malaria or unexplained fever episodes. Peripheral blood smears did not contain malaria parasites, but his serum contained fluorescent antibodies against malaria (*P. malariae* and *P. vivax* 1:160; *P. ovale* 1:80; and *P. falciparum* 1:10). (Reported by Howard B. Shookhoff, Chief, Division of Tropical Diseases, New York City Health Department; L. M. Wachtel, M.D., Jacksonville, Florida; E. Charlton Prather, M.D., M.P.H., Director, Division of Epidemiology, Florida State Board of Health; Mr. David Barry, Medical Student, Yale University School of Medicine; and Barbara W. Christine, M.D., M.P.H., Chief, Epidemiology Division, Connecticut State Department of Health.)

Editorial Comment:

Case 1 is the first transfusion induced *P. ovale* infection reported to NCDC. Case 2 developed her malaria 9 days after her arrival in Mexico. This interval is too short for mosquito transmitted *P. malariae* infection, but is compatible with transfusion induced infection. Investigations are continuing to identify the donor. It is noteworthy that the donors in Cases 1 and 3 did not have a past history of malaria despite the positive serologic findings. However, both were natives of malarious areas. They may have been infected early in life and acquired sufficient immunity to allow asymptomatic parasitemia.

SURVEILLANCE SUMMARY
MALARIA - 1967

Epidemiologic information was received on 2,303 cases of malaria with onset in the United States from January 1

to November 15, 1967, by the Malaria Surveillance Unit. Of these, 2,174 cases were in servicemen who acquired

infection in Vietnam (Table 2). Only seven of the 2,303 cases acquired infection in the United States: three blood transfusion induced cases (MMWR, Vol. 16, Nos. 15 and the present issue); two introduced cases (MMWR, Vol. 16, No. 29); one cryptic case (MMWR, Vol. 16, No. 36); and one congenital infection (MMWR, Vol. 16, No. 37).*

The Plasmodium species was identified in 97.3 percent of all cases (Table 3).

Table 2
Cases of Malaria, United States
1962-1967*

Year	Military		Civilian	Total
	Acquired in Vietnam	Acquired Elsewhere		
1962	0	75	44	119
1963	7	51	90	148
1964	14	38	119	171
1965	35	16	105	156
1966	585	25	137	247
1967**	2,174	20	109	2,303

*Through November 15, 1967

**Includes recently discharged veterans.

Table 3
Cases of Malaria by Plasmodium Species
United States, Jan. 1-Nov. 15, 1967

Species	Military	Civilian	Total	Percent
<i>P. vivax</i>	1,827	71	1,898	82.5
<i>P. falciparum</i>	267	17	284	12.3
<i>P. malariae</i>	8	4	12	0.5
<i>P. ovale</i>	0	11	11	0.5
Mixed infections	35	0	35	1.5
Unknown	57	6	63	2.7
Total	2,194	109	2,303	100.0

***Malaria Terminology**

Introduced — malaria acquired by mosquito transmission contracted from an imported case in an area where malaria is not a regular occurrence.

Induced — malaria acquired through artificial means, i.e., malariotherapy, blood transfusion, common syringes.

Cryptic — an isolated case of malaria, not associated with secondary cases, as determined through appropriate epidemiologic investigation.

CURRENT TRENDS
MEASLES — United States

For the week ending December 16 (week 50), 425 cases of measles were reported to NCDC. Although there has been an increase in measles cases reported during the last 2 weeks, the cases reported are less than one-third of the reported cases in these weeks a year ago.

For the 4-week period, November 5 through December 2 (weeks 45-48), 21 counties or health districts reported

a total of ten or more cases of measles from 291 reporting areas. During the comparable period in 1966, 94 counties reported a total of ten or more cases from 432 reporting areas. Figure 5 indicates the reporting counties or health districts in these two periods. It is interesting to note that 19 of the 21 reporting areas for this period in 1967 include a large metropolitan area.

Figure 5
**COUNTIES OR HEALTH DISTRICTS REPORTING A TOTAL OF
10 OR MORE CASES OF MEASLES IN 4-WEEK PERIOD**

NOVEMBER 6-DECEMBER 3, 1966



NOVEMBER 5-DECEMBER 2, 1967



CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

DECEMBER 16, 1967 AND DECEMBER 17, 1966 (50th WEEK)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
DECEMBER 16, 1967 AND DECEMBER 17, 1966 (50th WEEK) - CONTINUED

AREA	MALARIA	MEASLES (Rubeola)		MENINGOCOCCAL INFECTIONS, TOTAL		POLIOMYELITIS			RUBELLA 1967	
		1967	1967	Cumulative		1967	1967	Paralytic		
		1967	1966	1967	1966	1967	1967	Cum. 1967		
UNITED STATES...	36	425	61,537	200,780	45	2,072	3,288	-	28	412
NEW ENGLAND.....	-	3	938	2,572	1	82	151	-	-	58
Maine.....	-	-	262	297	-	3	12	-	-	10
New Hampshire.....	-	-	78	80	1	4	9	-	-	1
Vermont.....	-	-	42	345	-	1	4	-	-	1
Massachusetts.....	-	2	395	836	-	37	62	-	-	8
Rhode Island.....	-	-	62	75	-	6	21	-	-	4
Connecticut.....	-	1	99	939	-	31	43	-	-	34
MIDDLE ATLANTIC.....	5	42	2,559	18,530	11	348	434	-	5	33
New York City.....	1	6	520	8,372	5	67	65	-	1	13
New York, Up-State.....	1	12	641	2,656	2	84	114	-	1	13
New Jersey.....	-	16	611	2,006	3	113	132	-	-	6
Pennsylvania.....	3	8	787	5,496	1	84	123	-	3	1
EAST NORTH CENTRAL...	2	138	6,228	70,321	7	286	521	-	6	92
Ohio.....	-	21	1,202	6,456	-	94	151	-	-	9
Indiana.....	-	13	669	5,817	-	31	88	-	3	8
Illinois.....	-	74	1,239	11,535	5	66	93	-	-	17
Michigan.....	2	9	1,026	15,120	2	74	135	-	3	28
Wisconsin.....	-	21	2,092	31,393	-	21	54	-	-	30
WEST NORTH CENTRAL...	4	42	2,997	9,289	6	100	170	-	3	31
Minnesota.....	-	3	139	1,684	1	22	36	-	-	4
Iowa.....	3	32	816	5,451	3	22	22	-	1	23
Missouri.....	-	-	340	539	2	21	65	-	-	-
North Dakota.....	-	4	890	1,389	-	3	11	-	-	1
South Dakota.....	-	-	58	40	-	7	6	-	-	-
Nebraska.....	-	3	660	186	-	15	11	-	-	3
Kansas.....	1	-	94	NN	-	10	19	-	2	-
SOUTH ATLANTIC.....	8	52	7,347	16,141	7	406	558	-	2	63
Delaware.....	-	-	51	267	-	8	7	-	-	-
Maryland.....	1	2	180	2,125	1	56	49	-	1	30
Dist. of Columbia.....	-	-	25	390	-	15	15	-	-	-
Virginia.....	-	11	2,326	2,265	2	45	70	-	-	3
West Virginia.....	-	14	1,477	5,542	-	38	44	-	-	15
North Carolina.....	6	8	935	738	-	86	142	-	1	-
South Carolina.....	1	1	514	664	1	33	55	-	-	-
Georgia.....	-	-	42	243	1	60	77	-	-	-
Florida.....	-	16	1,797	3,907	2	65	99	-	-	15
EAST SOUTH CENTRAL...	1	22	5,509	20,704	4	166	283	-	2	9
Kentucky.....	-	2	1,432	4,852	2	47	97	-	-	-
Tennessee.....	-	20	2,043	12,684	1	73	95	-	-	8
Alabama.....	-	-	1,357	1,807	-	29	62	-	-	1
Mississippi.....	1	-	677	1,361	1	17	29	-	2	-
WEST SOUTH CENTRAL...	1	48	18,126	26,954	4	259	439	-	10	-
Arkansas.....	-	-	1,404	1,168	-	41	37	-	1	-
Louisiana.....	-	-	156	103	3	102	166	-	1	-
Oklahoma.....	1	-	3,359	659	-	18	23	-	1	-
Texas.....	-	48	13,207	25,024	1	98	213	-	7	-
MOUNTAIN.....	9	25	4,895	12,614	-	40	94	-	-	27
Montana.....	-	3	334	1,913	-	5	5	-	-	-
Idaho.....	-	6	405	1,703	-	3	5	-	-	1
Wyoming.....	-	2	204	235	-	1	6	-	-	4
Colorado.....	7	6	1,632	1,431	-	13	49	-	-	7
New Mexico.....	1	1	607	1,232	-	5	10	-	-	-
Arizona.....	1	6	1,059	5,370	-	6	13	-	-	15
Utah.....	-	1	385	665	-	4	1	-	-	-
Nevada.....	-	-	269	65	-	3	5	-	-	-
PACIFIC.....	6	53	12,938	23,655	5	385	638	-	-	99
Washington.....	3	20	5,674	5,177	1	38	58	-	-	46
Oregon.....	-	4	1,706	2,527	-	30	42	-	-	3
California.....	3	29	5,235	15,151	4	302	516	-	-	46
Alaska.....	-	-	141	636	-	11	18	-	-	4
Hawaii.....	-	-	182	164	-	4	4	-	-	-
Puerto Rico.....	-	1	2,242	3,462	-	15	18	-	-	1

Morbidity and Mortality Weekly Report

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED

DECEMBER 16, 1967 AND DECEMBER 17, 1966 (50th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
		1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967
UNITED STATES...	10,277	7	223	6	165	4	393	-	297	48	4,048
NEW ENGLAND.....	1,038	-	3	-	1	-	10	-	1	1	104
Maine.....	25	-	-	-	-	-	-	-	-	-	24
New Hampshire.....	18	-	-	-	-	-	-	-	-	-	48
Vermont.....	50	-	-	-	-	-	-	-	-	-	25
Massachusetts.....	214	-	1	-	1	-	6	-	1	1	5
Rhode Island.....	138	-	-	-	-	-	1	-	-	-	2
Connecticut.....	593	-	2	-	-	-	3	-	-	-	-
MIDDLE ATLANTIC.....	338	-	16	-	1	-	40	-	35	3	100
New York City.....	6	-	9	-	-	-	21	-	-	-	-
New York, Up-State.....	296	-	1	-	1	-	11	-	9	3	84
New Jersey.....	NN	-	1	-	-	-	4	-	15	-	-
Pennsylvania.....	36	-	5	-	-	-	4	-	11	-	16
EAST NORTH CENTRAL.....	997	1	27	-	15	1	43	-	22	4	376
Ohio.....	228	-	4	-	-	1	15	-	11	-	131
Indiana.....	155	-	3	-	2	-	11	-	1	2	86
Illinois.....	261	-	13	-	13	-	7	-	10	-	71
Michigan.....	223	-	6	-	-	-	8	-	-	1	24
Wisconsin.....	130	-	1	-	-	-	2	-	-	1	64
WEST NORTH CENTRAL.....	631	1	17	1	23	-	21	-	4	9	955
Minnesota.....	23	1	6	-	-	-	2	-	1	2	191
Iowa.....	220	-	2	1	2	-	3	-	-	5	133
Missouri.....	2	-	7	-	9	-	10	-	1	2	172
North Dakota.....	92	-	-	-	-	-	-	-	-	-	166
South Dakota.....	59	-	1	-	2	-	-	-	-	-	116
Nebraska.....	176	-	-	-	-	-	4	-	2	-	70
Kansas.....	59	-	1	-	10	-	2	-	-	-	107
SOUTH ATLANTIC.....	1,047	1	47	1	12	-	63	-	119	1	476
Delaware.....	8	-	-	-	-	-	-	-	-	-	-
Maryland.....	135	-	-	-	-	-	2	-	21	-	4
Dist. of Columbia.....	-	-	-	-	-	-	3	-	-	-	6
Virginia.....	300	-	10	1	2	-	9	-	28	-	205
West Virginia.....	247	-	1	-	2	-	2	-	1	-	62
North Carolina.....	15	1	8	-	-	-	4	-	47	-	3
South Carolina.....	30	-	1	-	2	-	10	-	5	-	2
Georgia.....	19	-	4	-	5	-	21	-	17	1	116
Florida.....	293	-	23	-	1	-	12	-	-	-	78
EAST SOUTH CENTRAL.....	1,677	-	33	1	13	1	65	-	53	16	778
Kentucky.....	114	-	4	-	2	-	24	-	15	4	177
Tennessee.....	1,276	-	8	1	8	1	12	-	26	11	540
Alabama.....	143	-	11	-	1	-	12	-	12	1	51
Mississippi.....	144	-	10	-	2	-	17	-	-	-	10
WEST SOUTH CENTRAL.....	728	3	54	3	83	1	43	-	43	7	902
Arkansas.....	8	-	6	1	48	1	13	-	14	1	113
Louisiana.....	-	-	4	-	8	-	17	-	2	2	70
Oklahoma.....	19	-	4	2	20	-	8	-	16	1	354
Texas.....	701	3	40	-	7	-	5	-	11	3	365
MOUNTAIN.....	2,180	-	3	-	11	1	22	-	9	2	115
Montana.....	54	-	-	-	2	-	2	-	-	-	-
Idaho.....	283	-	-	-	-	-	-	-	-	-	-
Wyoming.....	269	-	-	-	2	-	1	-	-	-	5
Colorado.....	1,138	-	2	-	1	-	12	-	9	-	10
New Mexico.....	169	-	1	-	-	1	3	-	-	-	34
Arizona.....	119	-	-	-	-	-	4	-	-	2	54
Utah.....	148	-	-	-	6	-	-	-	-	-	3
Nevada.....	-	-	-	-	-	-	-	-	-	-	9
PACIFIC.....	1,641	1	23	-	6	-	86	-	11	5	242
Washington.....	458	-	-	-	2	-	2	-	2	-	2
Oregon.....	162	-	1	-	1	-	3	-	3	-	4
California.....	926	1	18	-	3	-	78	-	6	5	236
Alaska.....	32	-	-	-	-	-	-	-	-	-	-
Hawaii.....	63	-	4	-	-	-	3	-	-	-	-
Puerto Rico.....	9	-	18	-	-	-	8	-	-	3	35

Morbidity and Mortality Weekly Report

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Week No.

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED DECEMBER 16, 1967

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(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	800	493	39	38	SDUTH ATLANTIC:	1,266	676	47	56
Boston, Mass.	248	139	11	12	Atlanta, Ga.	128	55	5	8
Bridgeport, Conn.	48	27	3	2	Baltimore, Md.	275	153	9	6
Cambridge, Mass.	28	20	-	1	Charlotte, N. C.	38	23	-	2
Fall River, Mass.	32	25	2	-	Jacksonville, Fla.	70	32	2	-
Hartford, Conn.	64	36	3	6	Miami, Fla.	116	62	1	5
Lowell, Mass.	31	21	1	1	Norfolk, Va.	66	37	7	6
Lynn, Mass.	34	23	1	-	Richmond, Va.	119	63	1	8
New Bedford, Mass.	32	23	1	1	Savannah, Ga.	37	16	3	2
New Haven, Conn.	45	22	2	8	St. Petersburg, Fla.	85	71	5	2
Providence, R. I.	65	40	1	1	Tampa, Fla.	72	45	3	2
Somerville, Mass.	16	14	3	-	Washington, D. C.	211	91	8	13
Springfield, Mass.	46	36	5	1	Wilmington, Del.	49	28	3	2
waterbury, Conn.	41	23	-	2					
Worcester, Mass.	70	44	6	3	EAST SOUTH CENTRAL:	650	366	16	36
MIDDLE ATLANTIC:	3,574	2,120	151	150	Birmingham, Ala.	111	59	1	9
Albany, N. Y.	39	25	1	2	Chattanooga, Tenn.	46	29	2	4
Allentown, Pa.	43	32	3	3	Knoxville, Tenn.	39	30	-	1
Buffalo, N. Y.	153	92	3	10	Louisville, Ky.*	130	74	6	6
Camden, N. J.	44	27	1	-	Memphis, Tenn.	151	77	5	11
Elizabeth, N. J.	40	23	1	2	Mobile, Ala.	65	40	1	2
Erie, Pa.	45	19	3	3	Montgomery, Ala.	35	15	-	2
Jersey City, N. J.	59	33	1	3	Nashville, Tenn.	73	42	1	1
Newark, N. J.	94	53	9	7	WEST SOUTH CENTRAL:	1,150	586	39	83
New York City, N. Y.	1,862	1,085	88	67	Austin, Tex.	50	24	3	4
Paterson, N. J.	40	20	1	6	Baton Rouge, La.	28	13	1	6
Philadelphia, Pa.	534	337	11	12	Corpus Christi, Tex.	37	17	-	4
Pittsburgh, Pa.	199	97	6	19	Dallas, Tex.	168	89	3	10
Reading, Pa.	60	47	1	1	El Paso, Tex.	24	12	1	4
Rochester, N. Y.	109	66	9	4	Fort Worth, Tex.	85	42	8	12
Schenectady, N. Y.	22	12	-	-	Houston, Tex.	199	92	2	9
Scranton, Pa.	44	30	2	1	Little Rock, Ark.	57	34	4	2
Syracuse, N. Y.	55	33	2	2	New Orleans, La.	169	78	7	14
Trenton, N. J.	54	31	2	7	Oklahoma City, Okla.	81	47	-	3
Utica, N. Y.	44	34	5	-	San Antonio, Tex.	136	79	2	5
Yonkers, N. Y.	34	24	2	1	Shreveport, La.	58	28	7	6
EAST NORTH CENTRAL:	2,823	1,626	101	161	Tulsa, Okla.	58	31	1	4
Akron, Ohio	68	39	-	2	MOUNTAIN:	416	252	16	12
Canton, Ohio	37	27	3	2	Albuquerque, N. Mex.	42	27	3	1
Chicago, Ill.	877	471	35	55	Colorado Springs, Colo.	30	21	5	-
Cincinnati, Ohio	151	80	3	12	Denver, Colo.	118	72	3	5
Cleveland, Ohio	212	124	6	4	Ogden, Utah	16	12	-	-
Columbus, Ohio	92	49	5	8	Phoenix, Ariz.	81	44	-	3
Dayton, Ohio	95	51	-	7	Pueblo, Colo.	22	19	3	-
Detroit, Mich.	450	261	13	23	Salt Lake City, Utah	64	33	1	2
Evansville, Ind.	45	31	3	1	Tucson, Ariz.	43	24	1	1
Flint, Mich.	59	32	4	2	PACIFIC:	1,592	987	45	56
Fort Wayne, Ind.	38	25	1	2	Berkeley, Calif.	20	14	1	-
Gary, Ind.	35	16	4	3	Fresno, Calif.	54	29	4	6
Grand Rapids, Mich.	64	46	9	3	Glendale, Calif.*	32	23	1	1
Indianapolis, Ind.	153	90	2	14	Honolulu, Hawaii	53	31	2	2
Madison, Wis.	30	15	-	1	Long Beach, Calif.	73	50	2	1
Milwaukee, Wis.	144	99	3	6	Los Angeles, Calif.	457	280	9	14
Peoria, Ill.	40	23	-	4	Oakland, Calif.	97	62	3	3
Rockford, Ill.	29	21	1	1	Pasadena, Calif.	46	36	-	1
South Bend, Ind.	43	26	1	3	Portland, Oreg.	120	78	3	2
Toledo, Ohio	111	30	1	4	Sacramento, Calif.	51	31	1	-
Youngstown, Ohio					San Diego, Calif.	105	61	1	9
WEST NORTH CENTRAL:	827	509	30	31	San Francisco, Calif.	176	105	7	4
Des Moines, Iowa	60	41	1	2	San Jose, Calif.	35	24	1	3
Duluth, Minn.	14	11	-	-	Seattle, Wash.	175	91	8	6
Kansas City, Kans.	70	37	10	3	Spokane, Wash.	58	46	2	4
Kansas City, Mo.	128	83	1	2	Tacoma, Wash.	40	26	-	-
Lincoln, Nebr.	21	15	-	-	Total	13,098	7,615	484	623
Minneapolis, Minn.	100	62	3	6					
Omaha, Nebr.	72	46	2	1	Cumulative Totals				
St. Louis, Mo.	246	140	7	10	including reported corrections for previous weeks				
St. Paul, Minn.	50	32	-	4	All Causes, All Ages	-----	616,464		
Wichita, Kans.	66	42	6	3	All Causes, Age 65 and over	-----	352,168		

*Estimate - based on average percent of divisional total.

All Causes, All Ages	-----	616,464
All Causes, Age 65 and over	-----	352,168
Pneumonia and Influenza, All Ages	-----	21,575
All Causes, Under 1 Year of Age	-----	31,204

**INTERNATIONAL NOTES
QUARANTINE MEASURES**

Additional Immunization Information for International Travel—1967-68 edition—Public Health Service Publication No. 384

**Section 5
AFRICA**

Malawi—Page 31

Under cholera add: and from India and Pakistan.*

Somalia (Northern and Southern)—Page 34

Under yellow fever, insert the following information: Yellow fever vaccination is required of all arrivals from infected areas. No certificate is required for travelers who arrive in and remain in Berbera or Hargeisa.

United Arab Republic—Page 38

Add to the previous cholera information: and from Burma, East Pakistan, India, Indonesia, Mainland China, Nepal, Philippines, Thailand, and Vietnam.* The certificate recording the negative results of stool culture must be issued by a licensed laboratory and attested to by the health authority.*

ASIA

Iran—Page 56

In the note concerning cholera, delete: Iraq. Insert: Thailand.

*Conformity of these measures with the Regulations may be open to question, and the World Health Organization is in communication with the health administration concerned.

ERRATUM, Vol. 16, No. 49, p. 416.

In the article "Measles—Chicago," (Reported by Samuel L. Andelson, M.D., M.P.H., should be corrected to read:

(Reported by Samuel L. Andelman, M.D., M.P.H.)

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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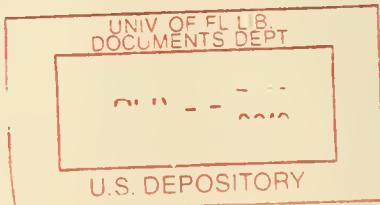
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NATIONAL COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333
ATTN: THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE FOLLOWING FRIDAY.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
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